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		EXAMINER		
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/792,113	Applicant(s) MORTON, PHILIP G.	
	Examiner Ryan D. Kwiecinski	Art Unit 3635	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 May 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 2-4, 10 and 15-27 is/are pending in the application.
 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 10, 15-22, 24 and 26 is/are allowed.
- 6) ☒ Claim(s) 3, 4, 23, 25 and 27 is/are rejected.
- 7) ☒ Claim(s) 2 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 03 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--------------------------------------------------------------------------------------|-------------------------------------------------------------------|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over US 5,687,518 to Endo et al. in view of US 5,260,112 to Grether et al. in view of US 2005/0081981 A1 to Heikkila.

Claim 23:

Endo et al. discloses a window assembly comprising a rectangular outer sash frame (4, Fig.3) including a set of elongated sash frame members (Fig.5c) of extruded rigid plastics material (Column 3, lines 15-17) with said sash frame members rigidly connected at corner portions (Column 5, lines 38-42) of said sash frame, a set of parallel spaced rectangular inner and outer glass panels (32,33, Fig.3) surrounded by said outer sash frame, said sash frame members including flange portions (4a, Fig.3) projecting laterally inwardly and overlapping a peripheral edge portion of said outer glass panel, a rectangular inner sub-sash frame (36, Fig.3) disposed within said outer sash frame and including elongated

sub-sash frame members, said sub-sash frame members including laterally inwardly projecting flange portions (left and right side of 36, Fig.3) overlapping a peripheral edge portion of at least one of said glass panels, a set of elongated glazing members (38, Fig.3) of extruded plastics material, said glazing members including laterally inwardly projecting flange portions (upper parts of 38, Fig.3) overlapping a peripheral edge portion of said inner glass panel, said glazing members including retaining portions (lower snap fit portions of 38, Fig.3) engaging said outer sash frame, a rectangular spacer frame (34, Fig.3) disposed between said peripheral edge portions of said glass panels, a bonding material surrounding said spacer frame and bonded to said edge portions of said glass panels, and said sub-sash frame surrounds said bonding material and outer edge surfaces of said glass panels (Fig.3).

Endo et al. does not directly disclose the sub-sash frame member being made from extruded rigid plastics material;

a bonding material securing said flange portions of said sub-sash frame members to said peripheral edge portion of said one glass panel; or

a bonding material surrounding said spacer frame and bonded to said edge portions of said glass panels.

Heikkila discloses the sub-sash frame member being made from extruded rigid plastics material (18, Fig.1) and a bonding material (34, Fig.2A) securing

said flange portions of said sub-sash frame members to said peripheral edge portion of said one glass panel.

Grether et al. discloses a bonding material (4, Fig.1) surrounding said spacer frame and bonded to said edge portions of said glass panels.

Although Endo et al. did not directly disclose the inner sub-sash frame as being formed from a plastics material it would have been obvious to have formed the sub-sash from plastics taught by Heikkila since the remainder of Endo et al.'s window unit was formed from plastics material. Using plastics material to form frame members is notoriously well known in the art. I would have also been obvious to bond these sub-sash frame members to the glass plates also taught by Heikkila in order to form a secure connection between the sub-sash and the glass plates. It would have further been obvious to have bonded the spacer frame to the inside surfaces of the glass plates taught by Grether et al. in order to secure the spacer frame in its position between the plates. Bonding spacer frames in between two glass plates is notoriously well known in the art.

Claim 25, 3-4, and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over US 5,687,518 to Endo et al. in view of US 2005/0081981 A1 to Heikkila.

Claim 25:

Endo et al. discloses a window assembly comprising a rectangular outer sash frame (4, Fig.3) including a set of elongated sash frame members (Fig.5c) of extruded rigid plastics material (Column 3, lines 15-17) with said sash frame members rigidly connected at corner portions (Column 5, lines 38-42) of said sash frame, a set of parallel spaced rectangular inner and outer glass panels (32,33, Fig.3) surrounded by said outer sash frame, said sash frame members including flange portions (4a, Fig.3) projecting laterally inwardly and overlapping a peripheral edge portion of said outer glass panel, a rectangular inner sub-sash frame (36, Fig.3) disposed within said outer sash frame and including elongated sub-sash frame members, said sub-sash frame members including laterally inwardly projecting flange portions (left and right side of 36, Fig.3) overlapping a peripheral edge portion of at least one of said glass panels, a set of elongated glazing members (38, Fig.3) of extruded plastics material, said glazing members including laterally inwardly projecting flange portions (upper parts of 38, Fig.3) overlapping a peripheral edge portion of said inner glass panel, said glazing members including retaining portions (lower snap fit portions of 38, Fig.3) engaging said outer sash frame, and each of said sub-sash frame members including a base portion (horizontal part of 36, Fig.3) closely surrounding and covering peripheral edge surfaces of said glass panels.

Endo et al. does not directly disclose the sub-sash frame member being made from extruded rigid plastics material or a bonding material securing said

flange portions of said sub-sash frame members to said peripheral edge portion of said one glass pane.

Heikkila discloses the sub-sash frame member being made from extruded rigid plastics material and a bonding material securing said flange portions of said sub-sash frame members to said peripheral edge portion of said one glass panel.

Although Endo et al. did not directly disclose the inner sub-sash frame as being formed from a plastics material it would have been obvious to have formed the sub-sash from plastics taught by Heikkila since the remainder of Endo et al.'s window unit was formed from plastics material. Using plastics material to form frame members is notoriously well known in the art. I would have also been obvious to bond these sub-sash frame members to the glass plates also taught by Heikkila in order to form a secure connection between the sub-sash and the glass plates.

Claim 3:

Endo et al. in view of Heikkila disclose the window assembly as defined in claim 25, Heikkila also discloses wherein sub-sash frame members are rigidly connected at corner portions (Page 3, Paragraph [0021] of said sub-sash frame.

Claim 4:

A window assembly as defined in claim 3, Heikkila also discloses wherein said sub-sash frame members are mitered and welded at said corner portions of said sub-sash frame (Page 3, Paragraph [0021]).

Claim 27:

Endo et al. discloses a window assembly comprising a rectangular outer sash frame (4, Fig.3) including a set of elongated sash frame members (Fig.5c) of extruded rigid plastics material (Column 3, lines 15-17) with said sash frame members rigidly connected at corner portions (Column 5, lines 38-42) of said sash frame, a set of parallel spaced rectangular inner and outer glass panels (32,33, Fig.3) surrounded by said outer sash frame, said sash frame members including flange portions (4a, Fig.3) projecting laterally inwardly and overlapping a peripheral edge portion of one of said glass panels, a rectangular inner sub-sash frame (36, Fig.3) disposed within said outer sash frame and including elongated sub-sash frame members, said sub-sash frame members including laterally inwardly projecting flange portions (right and left side of 36, Fig.3) overlapping a peripheral edge portion of an adjacent one of said glass panels, a set of elongated glazing members (38, Fig.3) of extruded plastics material, said glazing members including laterally inwardly projecting flange portions (upper portions of 38, Fig.3) overlapping a peripheral edge portion of one of said glass panels, said glazing members including retaining portions (lower snap fit portions, Fig.3) engaging said outer sash frame, and each of said sub-sash

frame members including a base portion (horizontal portion of 36, Fig.3) closely surrounding and covering peripheral edge surfaces of said glass panels.

Endo et al. does not directly disclose the sub-sash frame member being made from extruded rigid plastics material or a bonding material securing said flange portions of said sub-sash frame members to said peripheral edge portion of said one glass pane.

Heikkila discloses the sub-sash frame member being made from extruded rigid plastics material and a bonding material securing said flange portions of said sub-sash frame members to said peripheral edge portion of said one glass panel.

Although Endo et al. did not directly disclose the inner sub-sash frame as being formed from a plastics material it would have been obvious to have formed the sub-sash from plastics taught by Heikkila since the remainder of Endo et al.'s window unit was formed from plastics material. Using plastics material to form frame members is notoriously well known in the art. I would have also been obvious to bond these sub-sash frame members to the glass plates also taught by Heikkila in order to form a secure connection between the sub-sash and the glass plates.

Allowable Subject Matter

Claim 2 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 10, 15-22, 24, and 26 are allowed.


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ryan D. Kwiecinski whose telephone number is (571)272-5160. The examiner can normally be reached on Monday - Friday from 8 am to 5 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richard Chilcot can be reached on (571)272-6777. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


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